

2nd International Conference on

Livestock Nutrition

July 21-22, 2016 Brisbane, Australia



Edir Nepomuceno Silva

World's Poultry Science Association, Brazil

New advances on feed additives (probiotics and prebiotics) to replace antibiotics as growth promoters

For many decades Antibiotic Growth Promoters (AGP) have been traditionally used worldwide in sub-therapeutic levels to counter microbial infections in poultry; improving their performance. But due to public health concern on the overall increase in antimicrobial resistance, the use of AGP is either restricted or outrightly banned in several countries. Thus, alternatives to AGP have been searched and developed. Among the candidates for replacement, probiotics and prebiotics have the most widespread acceptance at this time. Probiotics are mono or mixed cultures of live microorganisms, which include beneficial effect on the host by improving the properties of the indigenous microflora in the gut. Killed bacteria cultures as well as bacterial metabolites have been included in the definition. Prebiotics are generally defined as non-digestible polysaccharides and oligosaccharides that can positively affect the animal organism by stimulating the activity and growth of beneficial native bacteria in the gastrointestinal tract and eliminate the pathogenic ones, thus, serve as substrate for beneficial bacteria. Lactose, mannanoligosaccharide (MOS), fructooligosaccharides (FOS), galactooligosaccharides (GOS), yeast cell wall parts are the most recognized prebiotics for poultry. Their beneficial effects are enhanced when prebiotics are used simultaneously with probiotics in the form of symbiotics. Significant variability still exists in their effectiveness. This presentation will review the use of probiotics and prebiotics as AGP alternatives, the potential mechanism of their action and discuss some recent data on the effects of these supplements in poultry nutrition.

Biography

Edir Nepomuceno Silva has completed his PhD in 1978 from State University of Sao Paulo (USP), Brazil and Postdoctoral studies from University of Massachusetts, USA. He has lectured on diseases of poultry, food hygiene and safety on poultry products and was retired as a full Professor. He has published more than 50 papers in reputed journals. He is the Founder in 1981 of the *Brazilian Poultry Science and Technology Foundation (FACTA)*, a non-profit association that organizes an annual poultry conference, training courses and seminars. He has published several technical teaching books and a Brazilian Poultry Science journal, since he has been on the Facta's Executive Committee. FACTA hosted the World Poultry Congress in 2012, and he became the President of the World's Poultry Science Association (2012-16). As an Entrepreneur, he established a poultry vaccine company, a poultry diagnostic laboratory and a probiotic/prebiotic company.

edir@fea.unicamp.br